

### Sequence Listing

- SEQ ID NO: 1: polynucleotide sequence of modified K122 pilin peptide;  
SEQ ID NO: 2 polypeptide sequence of modified K122 pilin peptide;  
SEQ ID NO: 3: polynucleotide sequence of modified PAK pilin peptide;  
5 SEQ ID NO: 4 polypeptide sequence of modified PAK pilin peptide;  
SEQ ID NO: 5: polynucleotide sequence of modified PAO pilin peptide;  
SEQ ID NO: 6: polypeptide sequence of modified PAO pilin peptide;  
SEQ ID NO: 7: polynucleotide sequence of modified P1 pilin peptide;  
SEQ ID NO: 8: polypeptide sequence of modified P1 pilin peptide;  
10 SEQ ID NO: 9: polynucleotide sequence of modified KB7 pilin peptide;  
SEQ ID NO: 10: polypeptide sequence of modified KB7 pilin peptide;  
SEQ ID NO: 11: polynucleotide sequence of H-coil/truncated PAK pilin peptide;  
SEQ ID NO: 12: polypeptide sequence of H-coil/truncated PAK pilin peptide;  
SEQ ID NO: 13: polynucleotide sequence of E-coil/truncated PAK pilin peptide;  
15 SEQ ID NO: 14: polypeptide sequence of E-coil/truncated PAK pilin peptide;  
SEQ ID NO: 15: polynucleotide sequence of H-coil/truncated K122 pilin peptide;  
SEQ ID NO: 16: polypeptide sequence of H-coil/truncated K122 pilin peptide;  
SEQ ID NO: 17: polynucleotide sequence of E-coil/truncated K122 pilin peptide;  
SEQ ID NO: 18: polypeptide sequence of E-coil/truncated K122 pilin peptide;  
20 SEQ ID NO: 19: polynucleotide sequence of H-coil/truncated PAO pilin peptide;  
SEQ ID NO: 20: polypeptide sequence of H-coil/truncated PAO pilin peptide;  
SEQ ID NO: 21: polynucleotide sequence of E-coil/truncated PAO pilin peptide;  
SEQ ID NO: 22: polypeptide sequence of E-coil/truncated PAO pilin peptide;